## Appendix B RWSP Conveyance Policies

### **RWSP Conveyance Policies**

A. Explanatory material. The conveyance policies are intended to guide how major improvements to the wastewater conveyance system, including building and upgrading the pipes and pump stations needed to convey wastewater to the Brightwater treatment plant and building the outfall pipe from the Brightwater treatment plant, will be accomplished. The policies also include guidance for other major and minor conveyance improvements to accommodate increased flows in other parts of the service area and to prevent improper discharges from the sanitary system.

The policies also direct the executive to develop and recommend policies to implement equitable regional ownership of the conveyance system.

### **Conveyance Policies**

### CP-1: To protect public health and water quality, King County shall plan, design and construct county wastewater facilities to avoid sanitary sewer overflows.

- 1. The twenty-year peak flow storm shall be used as the design standard for the county's separated wastewater system.
- 2. Parameters developed by the wastewater treatment division in consultation with the metropolitan water pollution abatement advisory committee shall be used to guide project scheduling and prioritization for separated wastewater system projects.
- 3. The south treatment plant effluent transfer system shall be designed with a five-year design storm standard. When effluent volumes exceed the five-year design standard and exceed the capacity of the south treatment plant effluent transfer system, secondary treated effluent from the south treatment plant will be discharged to the Green/Duwamish river until the flow subsides such that the flow can be discharged through the south treatment plant effluent transfer system.

(Ordinance 15602 amended this policy clarifying the definition of the design standard and adding CP-1.2 on the use of parameters developed in consultation with Metropolitan Water Pollution Abatement Advisory Committee)

CP-2: King County shall construct the necessary wastewater conveyance facilities, including, but not limited to pipelines, pumps and regulators, to convey wastewater from component agencies to the treatment plants for treatment and to convey treated effluent to water bodies for discharge. Conveyance facilities shall be constructed during the

### How implemented in 2004-2006

CP-1.1: The twenty-year peak flow storm is used as the design standard for the county's separated wastewater system.

CP-1.2: In 2004, WTD worked in consultation with MWPAAC to develop prioritization criteria, which were used in the process to update the Conveyance System Improvement program. (See Chapter 3 for more information.)

CP-1.3: There were no emergency or maintenance discharges from South Plant to the Green/Duwamish River in 2004–2006.

Conveyance projects are being planned and implemented to meet the 20-year peak flow storm design standard and projected flow increases based on anticipated growth.

The conveyance system improvement (CSI) program was updated in 2007. The CSI program update identifies 33 conveyance projects to meet identified

### **Conveyance Policies**

# planning period of this plan to ensure that all treatment plants can ultimately operate at their rated capacities. No parallel eastside interceptor shall be constructed. No parallel Kenmore Interceptor shall be constructed.

### How implemented in 2004-2006

capacity needs through 2050; 24 of these projects are planned through the RWSP planning horizon of 2030. All 33 projects are in addition to the RWSP projects that are completed or that are in design or construction.

Chapter 3 provides information on the CSI program update and on conveyance projects in design or construction in 2004-2006.

CP-3: King County shall periodically evaluate population and employment growth assumptions and development pattern assumptions used to size conveyance facilities to allow for flexibility to convey future flows that may differ from previous estimates.

In preparation of the CSI program update, WTD staff used the population and flow information that was included in the 2004 RWSP Update and met with staff from the component agencies to go over the estimates and what they are experiencing to validate the estimates and ensure facilities are planned accordingly.

The county will continue to evaluate population, employment, and development growth assumptions based on information gathered from the Puget Sound Regional Council, local jurisdiction's comprehensive plan updates, and discussions with the component agencies.

- CP-4: King County shall apply uniform criteria throughout its service area for the financing, development, ownership, operation, maintenance, repair and replacement of all conveyance facilities. The criteria shall include:
- 1. County ownership and operation of permanent conveyance facilities that serve natural drainage areas of greater than one thousand acres;
- 2. Conformance to the county's comprehensive water pollution abatement plan and the Regional Wastewater Service Plan as precondition of county ownership; and
- 3. A financial feasibility threshold governing limitations of the county's financial contribution to: development of a new interceptor or trunk sewer; or acquisition of an interceptor or trunk sewer constructed by a local agency. The threshold, as specified in K.C.C. 28.84.080, shall consider the capital costs that can be supported by the existing customers in the natural drainage area that would be served by the new facility.

(CP-4 in Ordinance 13680 directed the executive to prepare and submit to the council recommended policies for achieving uniform financing, construction, operation, maintenance and replacement of all conveyance facilities within its service area. Ordinance 15602, which was adopted by the King County Council in

The following activities regarding pipeline acquisitions took place in 2004 through 2006 in accordance with this policy:

- Acquisition of the Southeast Sammamish Interceptor and flow control structure from the Sammamish Plateau Water and Sewer District
- Acquisition of the Juanita Creek Trunk Sewer from Northshore Utility District
- Acquisition of the Coal Creek Interceptor Extension from Coal Creek Utility District

### **Conveyance Policies**

### How implemented in 2004-2006

September 2006, amended CP-4 to meet this requirement.)

CP-5: King County shall closely integrate water reuse planning and I/I study results with planning for wastewater conveyance and treatment facilities. King County shall consider water conservation and demand management assumptions developed by local utilities for wastewater facility planning.

(Ordinance 15602 amended CP-5 to clarify that the county consider the assumptions developed by local utilities for wastewater facility planning.)

For the CSI program update, the county used a water conservation planning assumption of a 10 percent reduction in per day consumption from the 2000 levels by 2010, with no additional reduction thereafter. This is the same assumption used to update the 1998 RWSP flow projections in the 2004 RWSP Update. WTD staff will continue to review and monitor the water conservation assumptions of the City of Seattle and other utilities in the county's wastewater service area. For example, in spring 2007, the City of Seattle revised its water conservation assumptions and is now projecting greater conservation through 2010 and additional conservation between 2010 and 2020. WTD is in the process of analyzing Seattle's revised water conservation assumptions to determine the effect, if any, on future flow projections and facility needs.

During the process to update the CSI program, no reclaimed water planning efforts were under way or planned that might affect the flow projections used in updating the CSI program. WTD staff will continue to review component agency comprehensive plans to incorporate any evaluation of reclaimed water opportunities in those plans into wastewater facilities planning.

The design and construction of the Brightwater reclaimed water pipeline takes advantage of the opportunity to construct this pipeline in conjunction with the construction of the Brightwater conveyance facilities.

The infiltration/inflow (I/I) initial projects will provide more information on the effectiveness of I/I control projects. I/I reduction will be pursued in lieu of a CSI project when the cost of an I/I project is less than the cost of the CSI improvement.

(Ordinance 15602 deleted CP-6, which called for a study on the impact of conveyance trenches on groundwater recharge, because the study had been completed.)